

CLAIMS

1. A method of moulding a reinforced nodal structure which includes laying down a cored reinforcement of constant cross section in and along the channels of a nodal mould and across the nodes thereof by repeated passes along the channels to at least partially fill the channels, closing the mould, and curing resin provided around the reinforcement.
2. A method according to claim 1 wherein the reinforcement is a foam-cored carbon fibre structure.
3. A method according to claim 1 or claim 2 wherein the channels are overfilled whereby closing the mould compresses the reinforcement.
4. A method according to any one of the previous claims wherein the laying down involves relative movement of a feeder head and the mould and control of the feed of reinforcement, all under computer numerical control (CNC).
5. A method according to claim 4 which includes also severing lengths of the reinforcement in the feeder head under CNC.
6. A method according to any one of the preceding claims which includes thermally tacking reinforcement to a preceding layer of reinforcement.
7. A method according to any one of the preceding

claims which includes introducing at least one insert in the mould to divert locally the reinforcement, to provide localised strengthening and/or to provide a mounting point.

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8. A machine for laying down reinforcement for a composite moulded nodal frame structure having a feeder head and a mould, means for feeding cored reinforcement of constant cross-section through the feeder head which causes relative movement of the feeder head and the mould so that the reinforcement is laid down in and along a channel of the mould.

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9. A machine according to claim 8 wherein the feeder head additionally includes means for severing the reinforcement into lengths.

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10. A machine according to claim 8 or claim 9 which is under CNC.

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11. A machine according to claim 8, claim 9 or claim 10 wherein the feeder head includes also a radiant heater.

12. An elongate cored reinforcement of constant cross-section for forming a composite moulded article, the reinforcement comprising an envelope of strength-giving fibres surrounding a core of expansible material.

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13. A cored reinforcement according to claim 12, in which the fibres are carbon fibres.

14. A cored reinforcement according to claim 12 or

claim 13, in which the envelope of strength-giving fibres has a braided structure.

15. A cored reinforcement according to claim 12, claim
5 13 or claim 14, in which the expansible material is a closed cell foam ~~material~~.

16. A method of moulding a composite article which
comprises laying in a mould at least one length of the
10 reinforcement of one of claims 12 to 15, closing the mould, reducing the pressure in the mould to cause expansion of the reinforcement to reduce void space within and around the reinforcement, and curing resin deposited around the reinforcement~~.~~

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